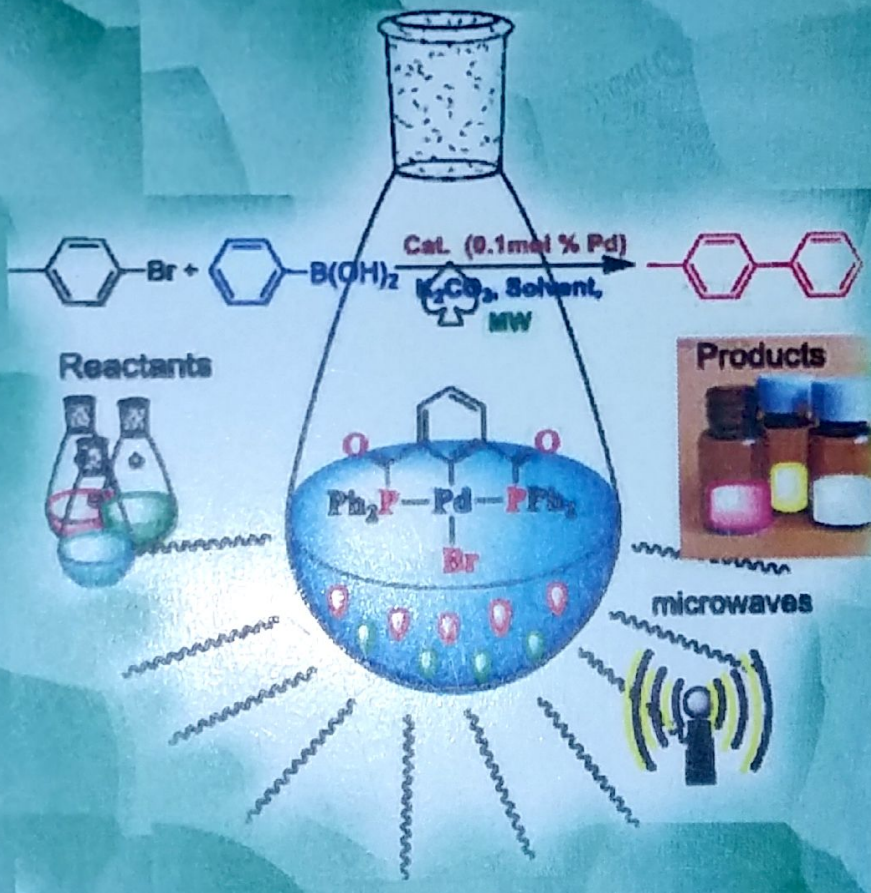
Organic Chemistry

Conversions



A.Shivakumar. M.Sc (Peradeniya)

CHEMISTRY

Organic

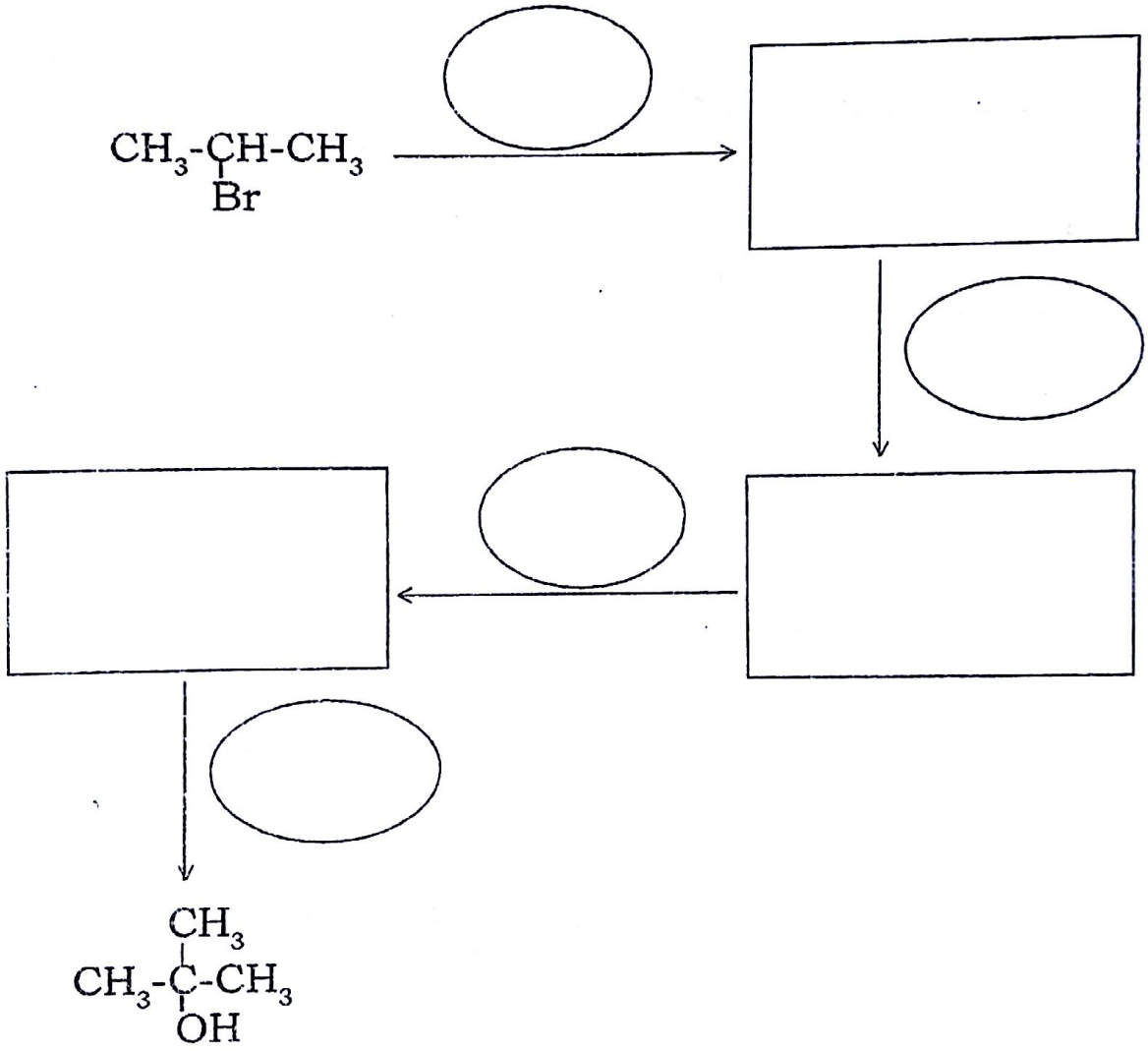
Conversions

01. Selecting appropriate reagents and solvents **only from the list below**, show how you would synthesis the following compounds.

List of the reagent and solvent:

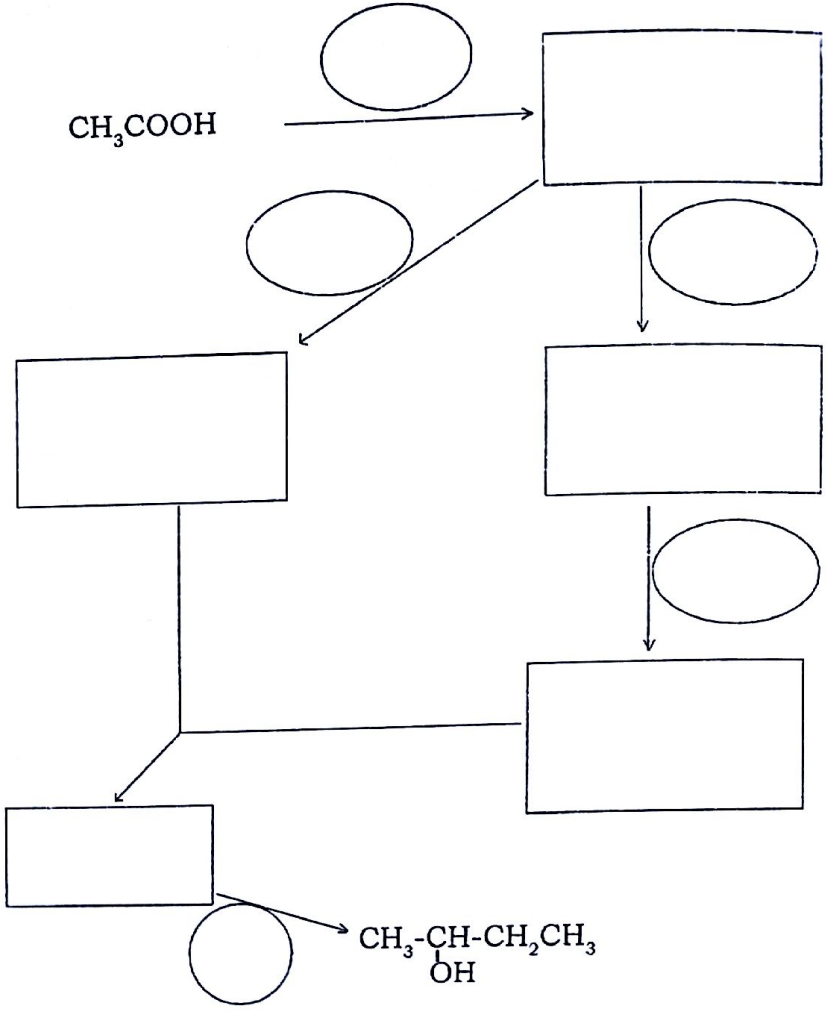
$K_2Cr_2O_7$, dil. H_2SO_4, aq NaOH,

CH_3MgBr, water, dry $(C_2H_5OC_2H_5)$



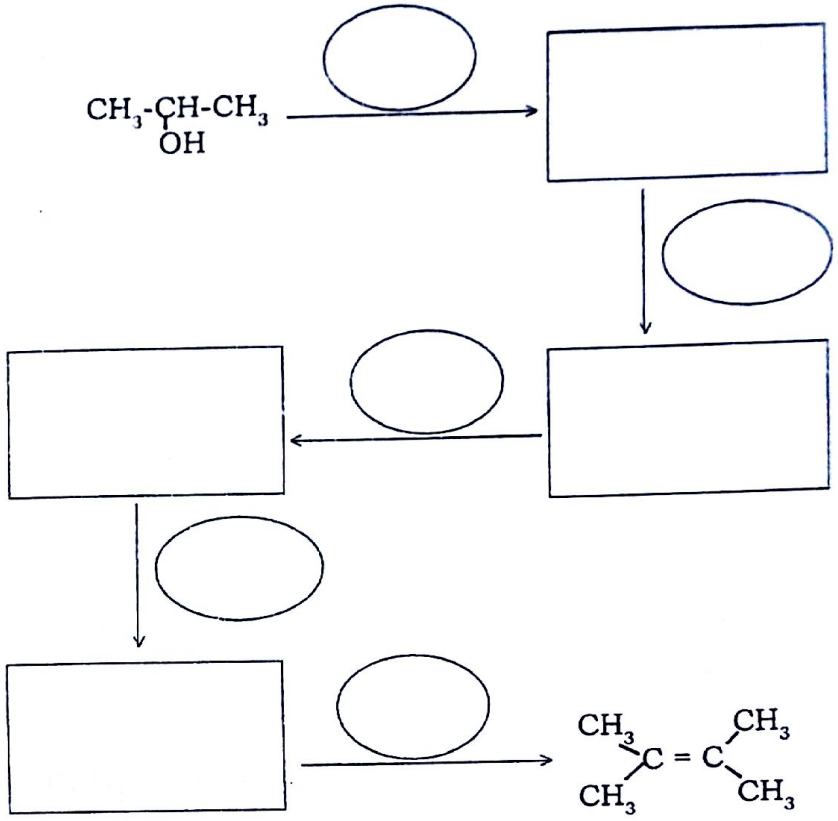
02. List of the reagent and solvent:

Mg, Br_2, PCl_5,
$LiAlH_4$, aq NaOH, Pyrideniumchlorochromate(PCC)
C_2H_5OH, water, dry ($C_2H_5OC_2H_5$)

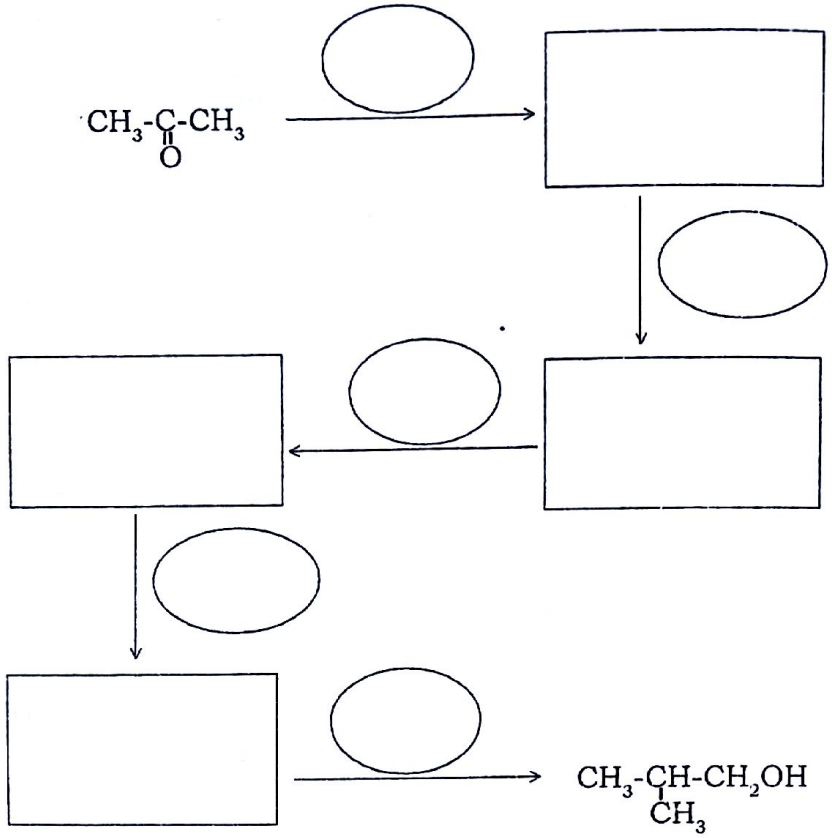


03. List of the reagent and solvent:

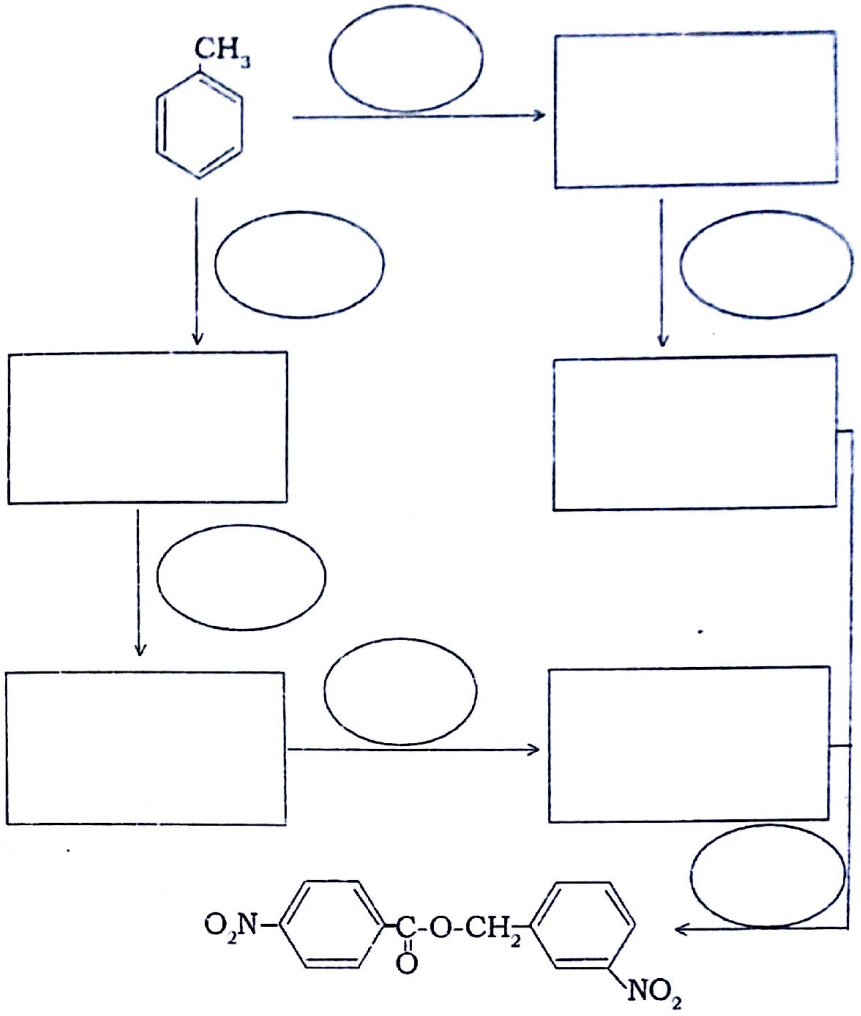
Mg, Br_2, PCl_5, $HgSO_4$, KOH
$K_2Cr_2O_7$, Conc. H_2SO_4, aq NaOH,
CH_3COCH_3, C_2H_5OH, water, dry ($C_2H_5OC_2H_5$)



04. List of the reagent and solvent:
Mg, PCl_5, $LiAlH_4$, KCN, dil HCl
C_2H_5OH, water, dry ($C_2H_5OC_2H_5$)



05 List of the reagent and solvent:
PCl_5, $AlCl_3$, KCN, $K_2Cr_2O_7$, Conc. HNO_3, Conc. H_2SO_4, $LiAlH_4$, C_2H_5OH, water, dry ($C_2H_5OC_2H_5$)

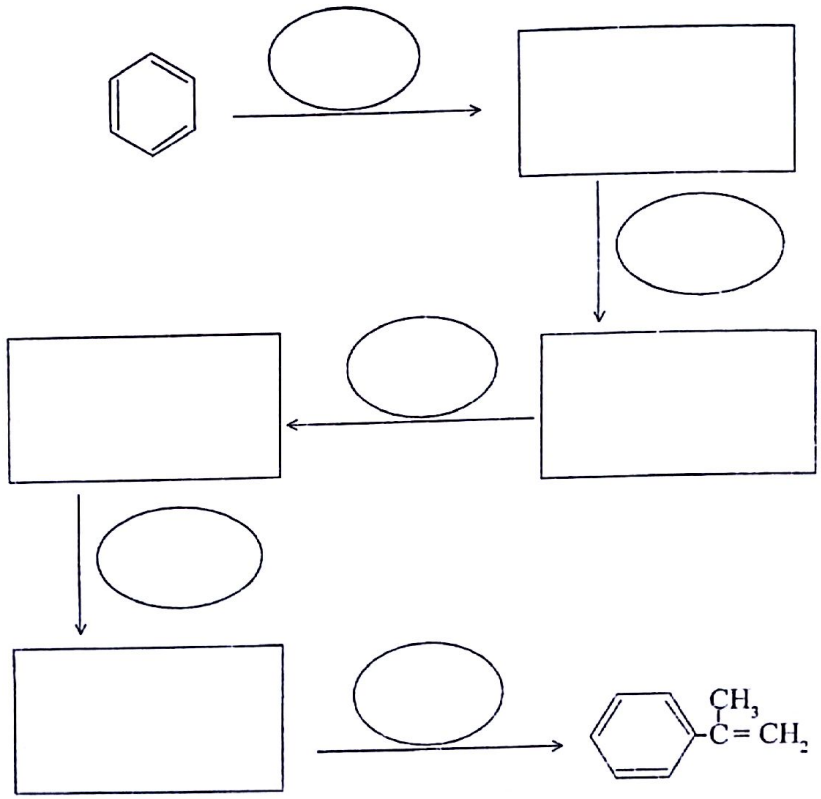


06. List of the reagent and solvent:

Mg, Fe, Br_2, PCl_5, $AlCl_3$

Conc. H_2SO_4, dil HCl, aq NaOH,

CH_3COCH_3, C_2H_5OH, water, dry ($C_2H_5OC_2H_5$)

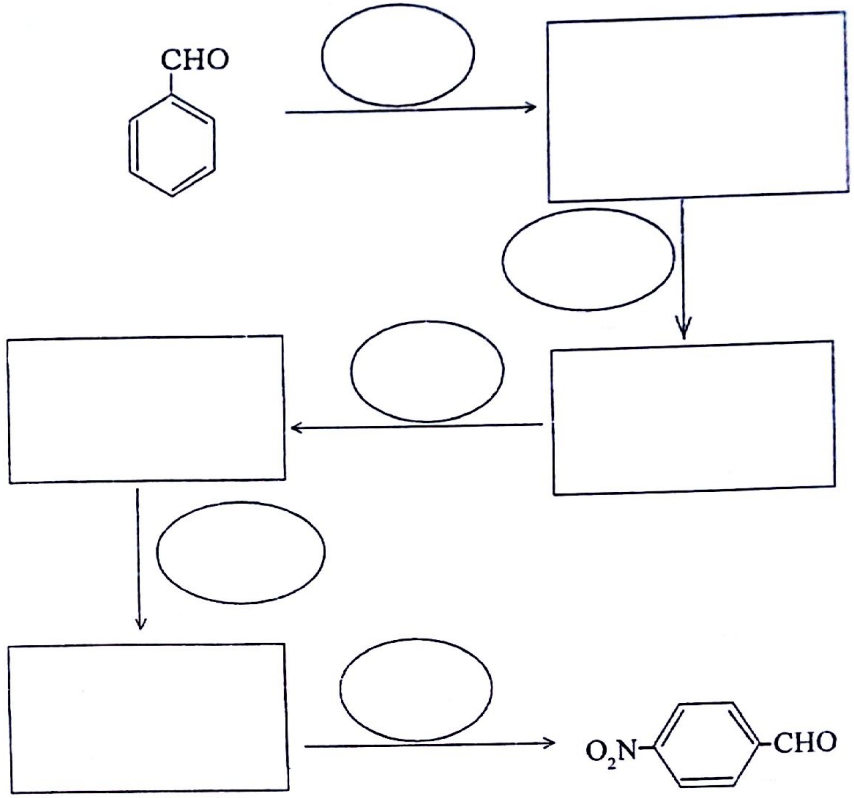


07. List of the reagent and solvent:

Zn, Fe, Hg, $LiAlH_4$, $K_2Cr_2O_7$, Conc. H_2SO_4, Conc. HCl

Conc. HNO_3, Pyrideniumchlorochromate(PCC),

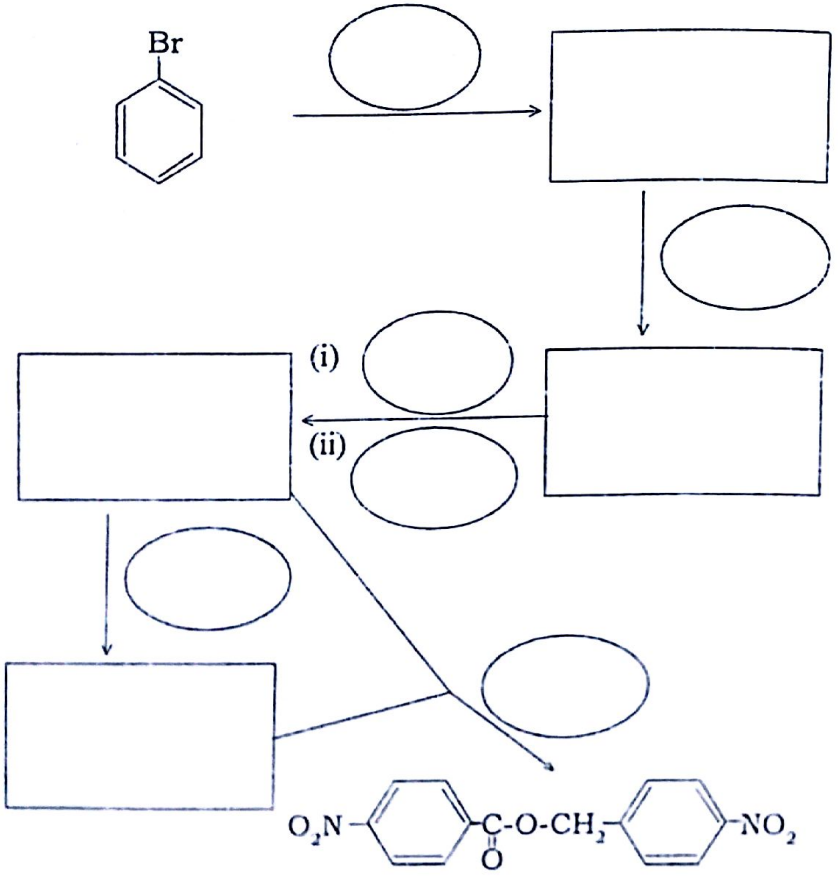
C_2H_5OH, water, dry ($C_2H_5OC_2H_5$)



08. List of the reagent and solvent:

Mg, $K_2Cr_2O_7$, Conc. HNO_3, Conc. H_2SO_4, dil HCl

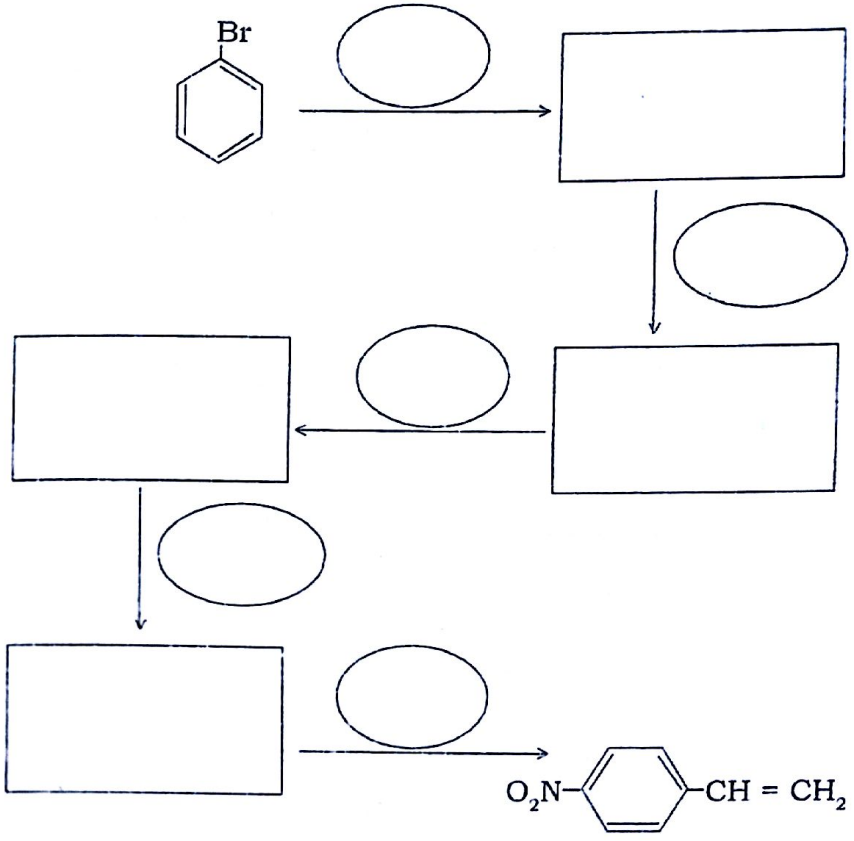
HCHO, C_2H_5OH, water, dry ($C_2H_5OC_2H_5$)



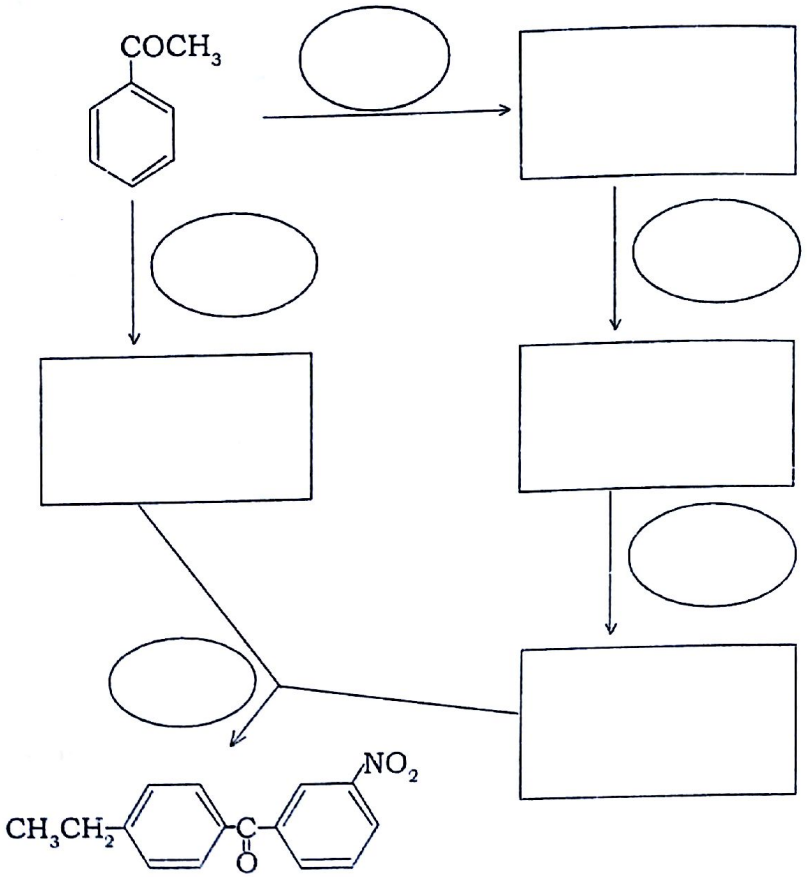
09. List of the reagent and solvent:

Mg, PCl_5, Conc. HNO_3, Conc. H_2SO_4, dil .HCl

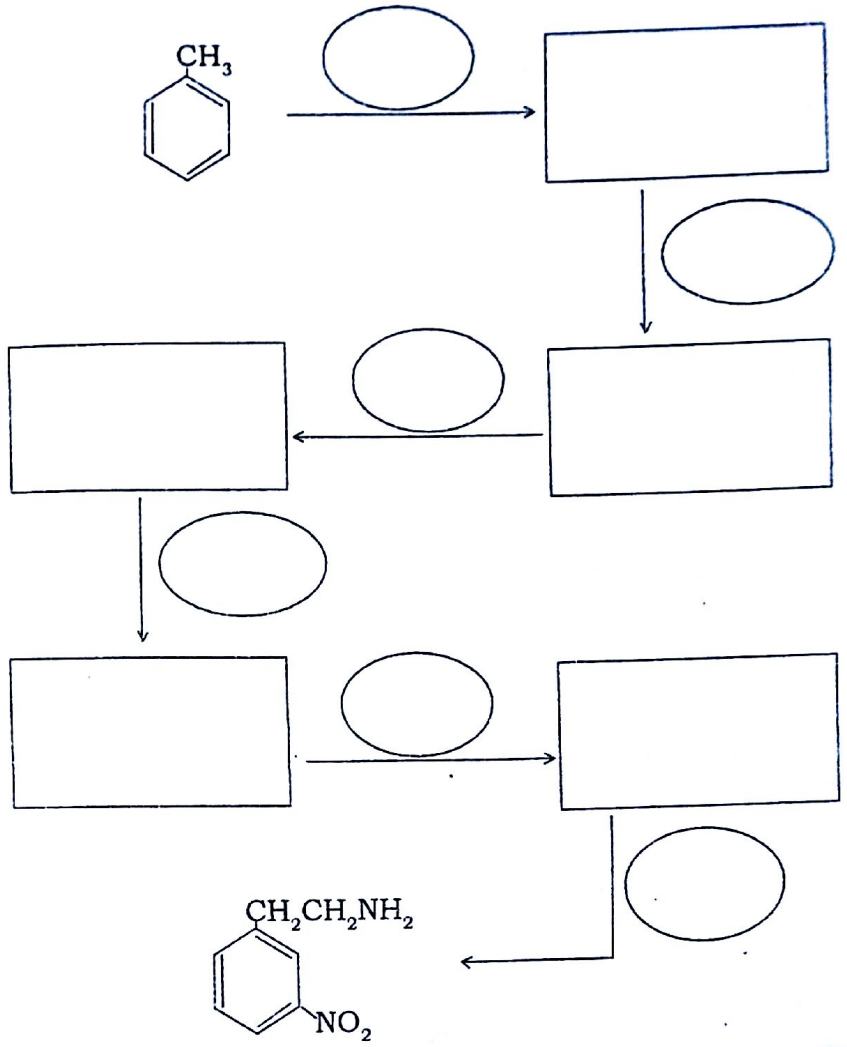
CH_3CHO, C_2H_5OH, water, dry ($C_2H_5OC_2H_5$)



10. List of the reagent and solvent:
Zn, Hg, PCl_5, $K_2Cr_2O_7$, Conc. HNO_3, Conc. H_2SO_4, $AlCl_3$, Conc.HCl, C_2H_5OH, water, dry ($C_2H_5OC_2H_5$)



11. Mg, Zn, Pt, Fe, Hg
Br_2, PCl_5, $AlCl_3$
KCN, $K_2Cr_2O_7$, Conc. HNO_3, Conc. H_2SO_4, Conc.HCl
aq NaOH,
C_2H_5OH, water, dry ($C_2H_5OC_2H_5$)

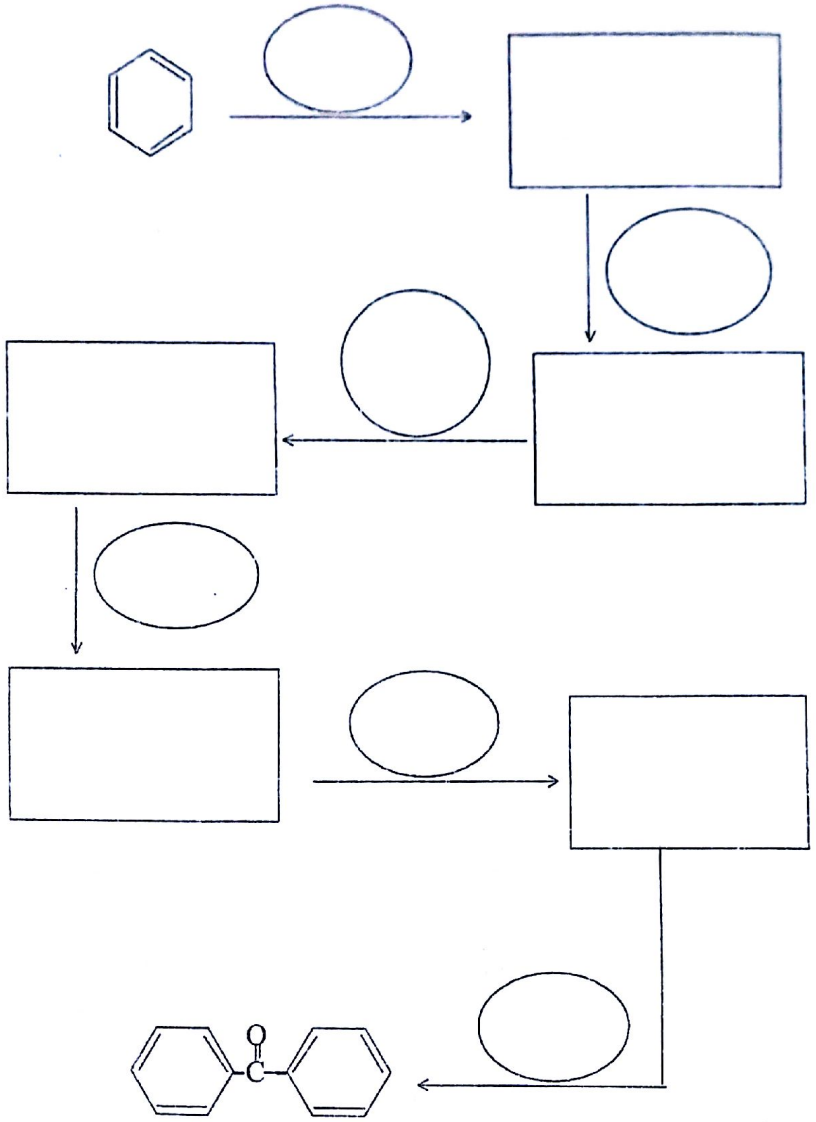


12. List of the reagent and solvent:

Mg, Fe, PCl_3, $AlCl_3$

Br_2, $K_2Cr_2O_7$, dil H_2SO_4

HCHO, C_2H_5OH, water, dry ($C_2H_5OC_2H_5$)

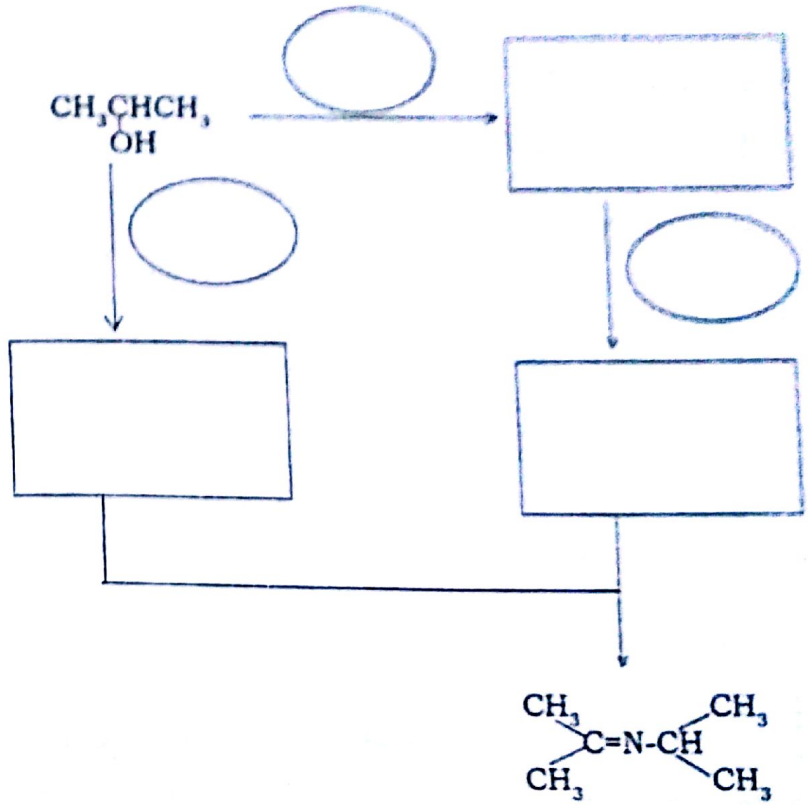


13. List of the reagent and solvent.

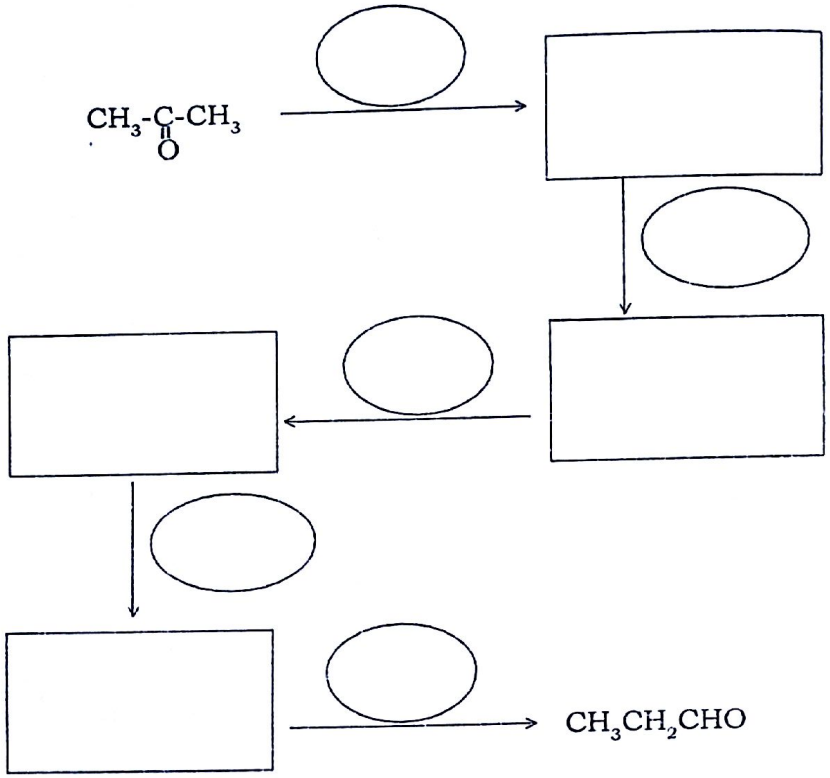
PCl_5, NH_3

$K_2Cr_2O_7$, dil. H_2SO_4

C_2H_5OH, water, dry ($C_2H_5OC_2H_5$)

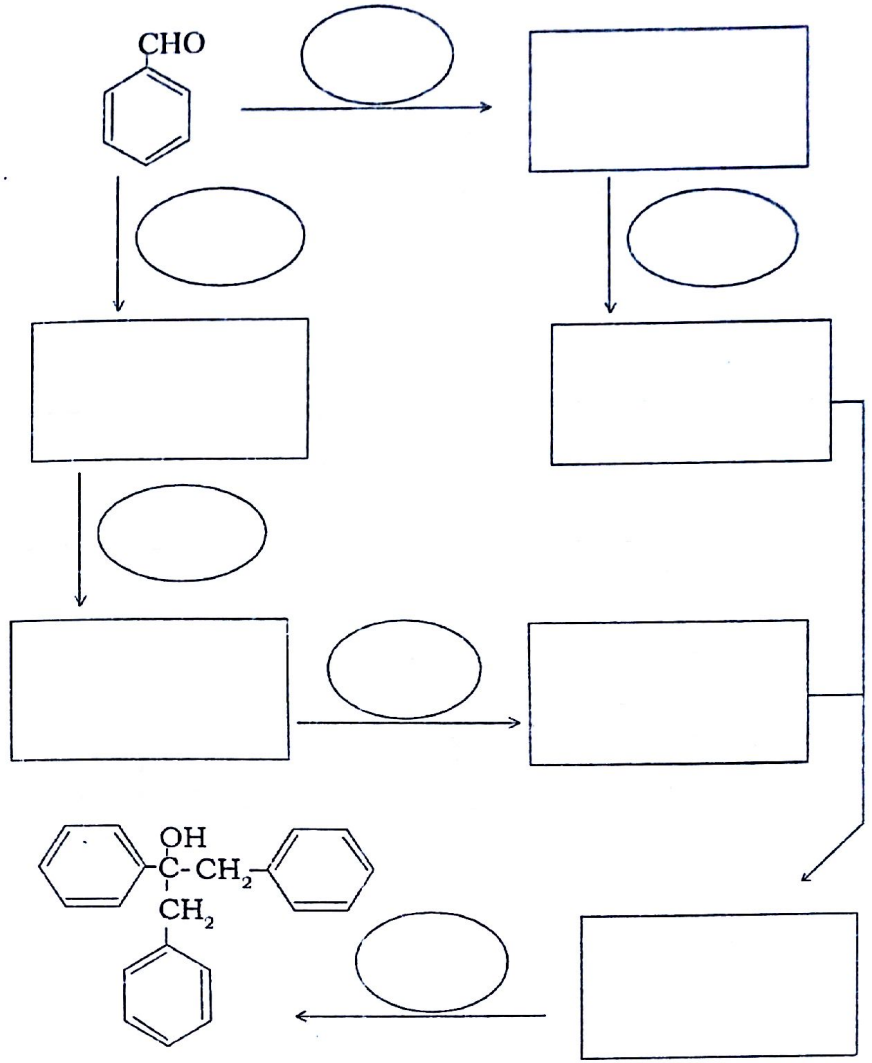


14. List of the reagent and solvent:
Conc. H_2SO_4, HBr, $NaBH_4$,
aq. NaOH, dry ($C_2H_5OC_2H_5$), Peroxybenzoic acid
Pyrideniumchlorochromate(PCC),

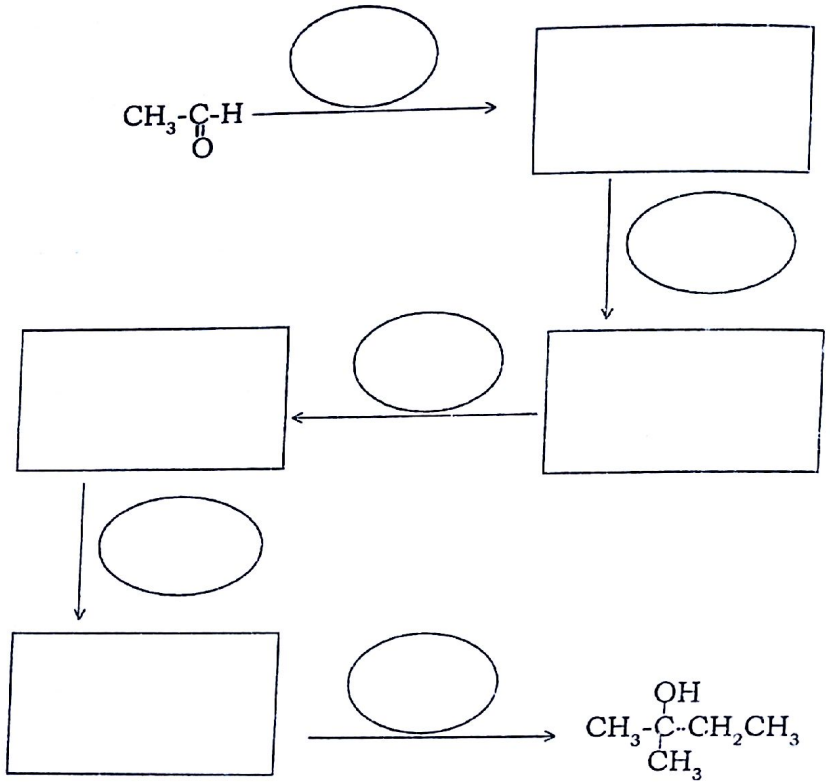


List of the reagent and solvent:

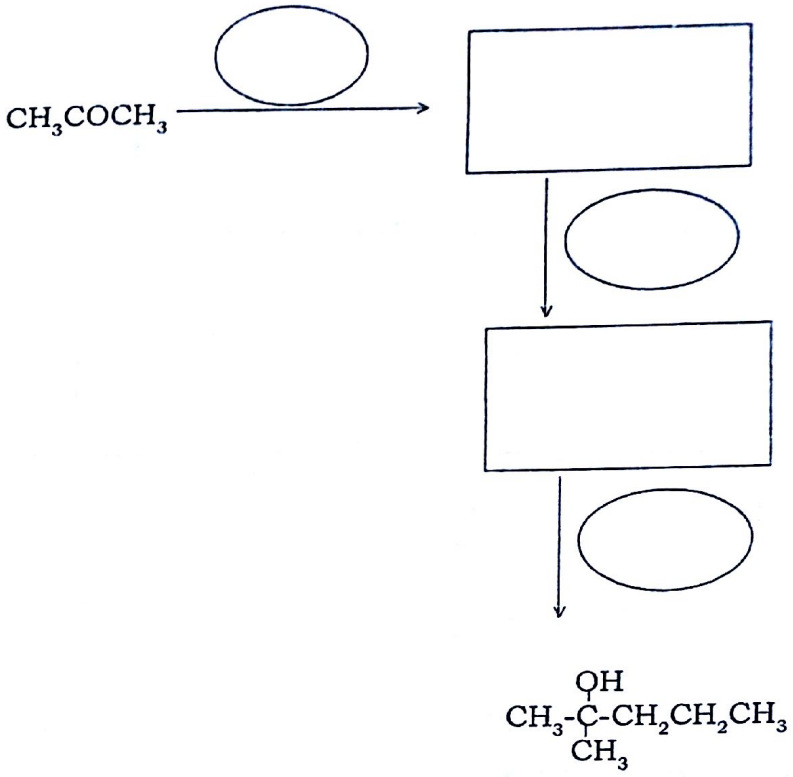
15. List of the reagent and solvent:
Mg, PCl_5, $K_2Cr_2O_7$, dil. H_2SO_4, $LiAlH_4$
C_2H_5OH, water, dry ($C_2H_5OC_2H_5$)



16. List of the reagent and solvent:
Mg, PCl_5, dil HCl, $LiAlH_4$,
CH_3COCH_3, C_2H_5OH, water, dry ($C_2H_5OC_2H_5$)



17. List of the reagent and solvent:
Zn, Hg, Conc.HCl, $LiAlH_4$, aq. NaOH, Conc.H_2SO_4

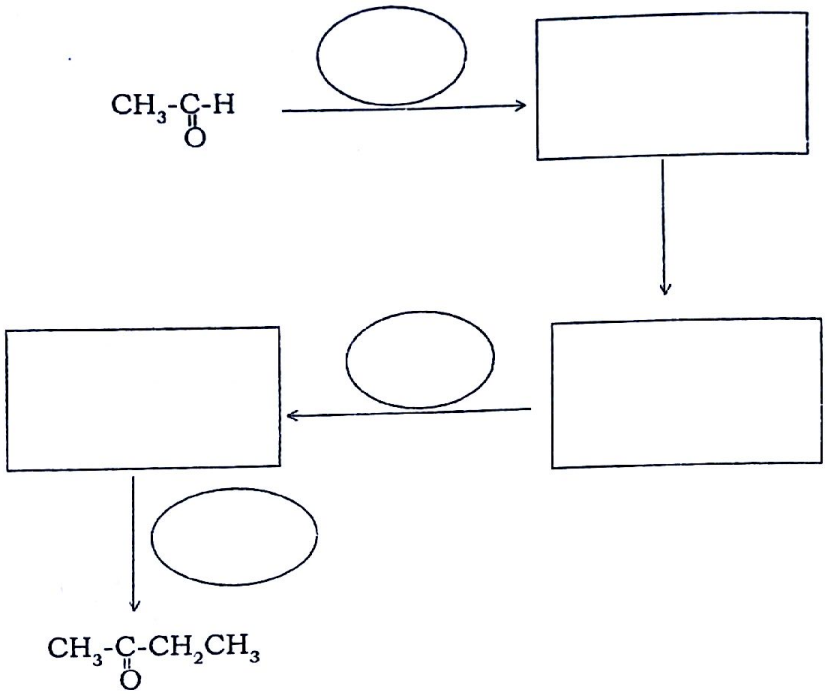


18. List of the reagent and solvent:

Mg, Zn, Hg

HBr, $K_2Cr_2O_7$, dil H_2SO_4, Conc.HCl

aq NaOH, C_2H_5OH, water, dry $(C_2H_5OC_2H_5)$

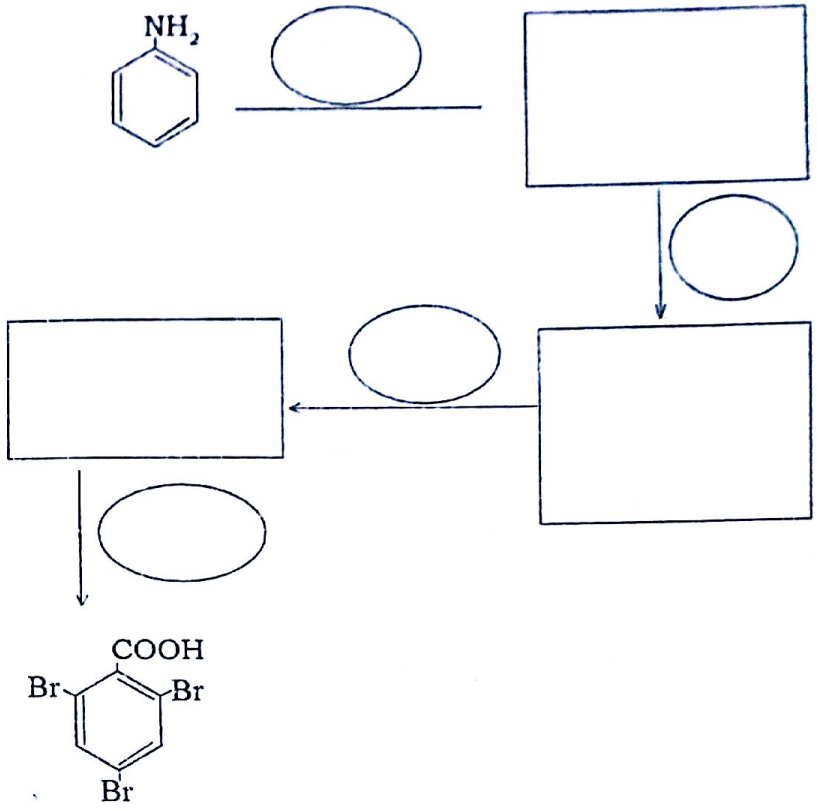


19. List of the reagent and solvent:

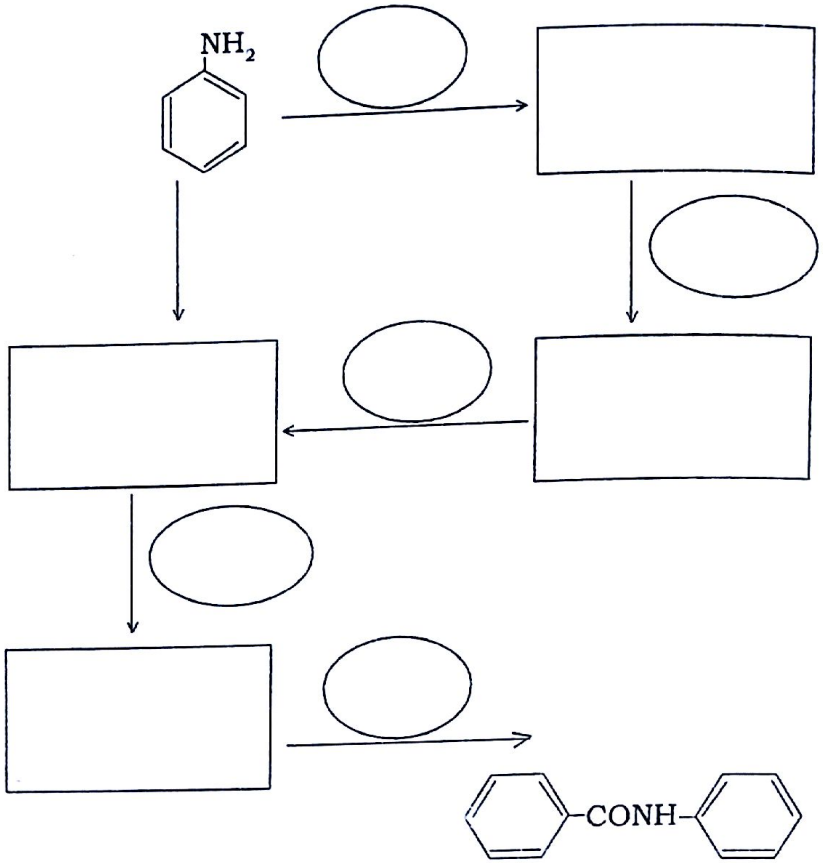
$NaNO_2$, $LiAlH_4$ KCN

Br_2, dil. HCl, CuCN

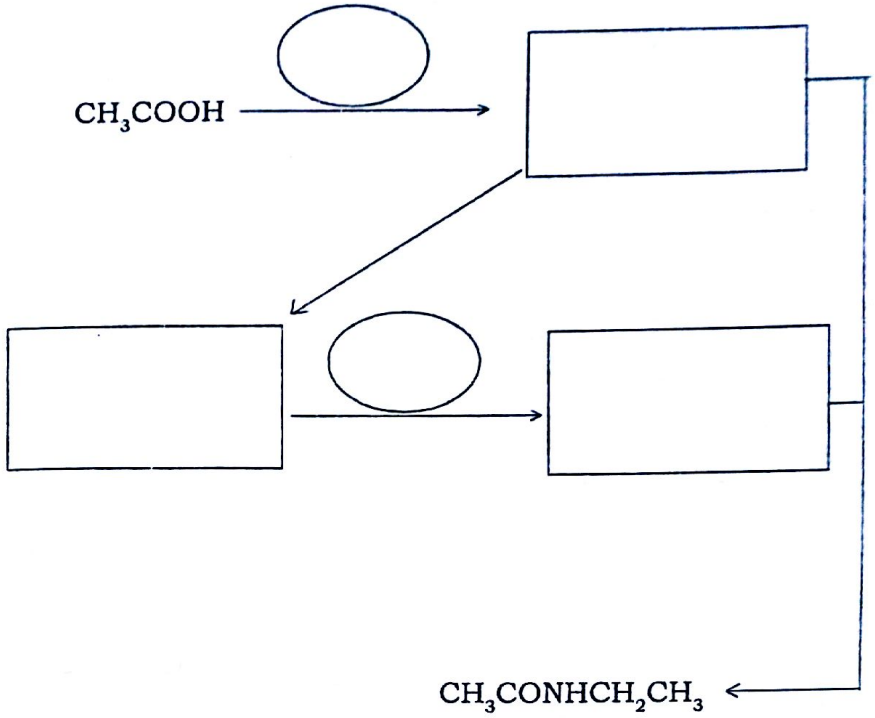
water, dry $(C_2H_5OC_2H_5)$



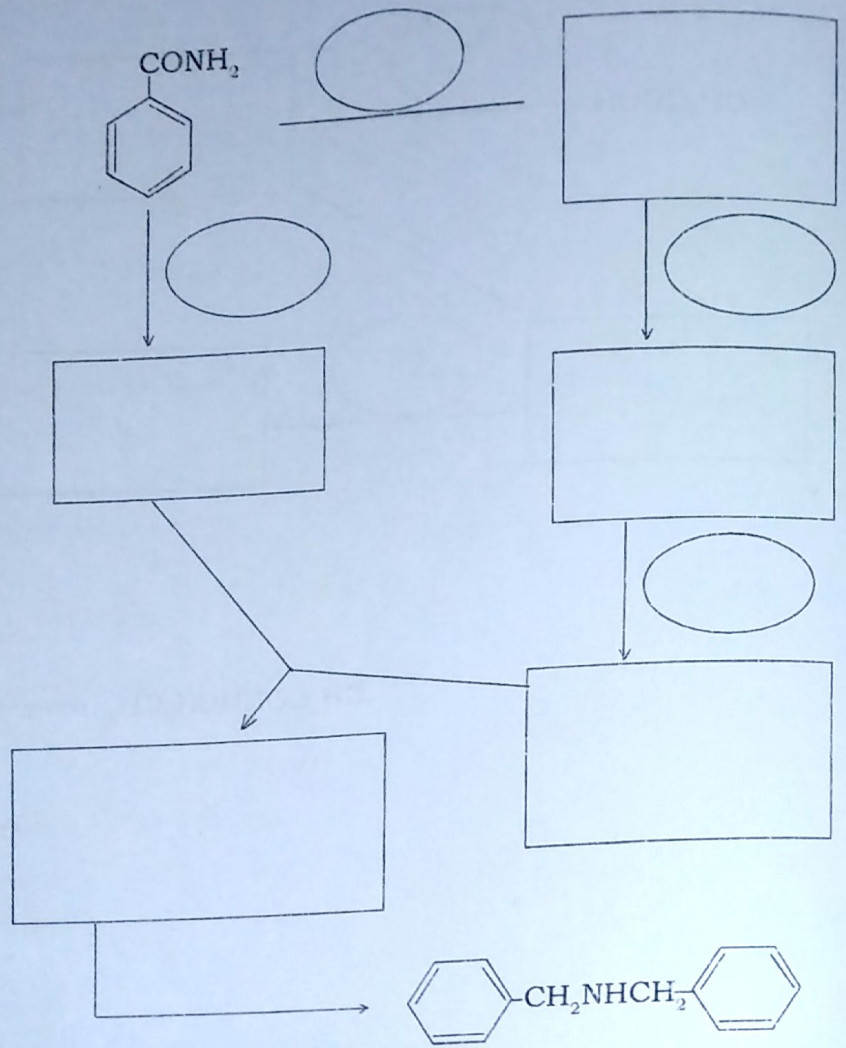
20. List of the reagent and solvent:
$NaNO_2$ dil .HCl, CuCN, KCN, PCl_5
C_2H_5OH, water, dry ($C_2H_5OC_2H_5$)



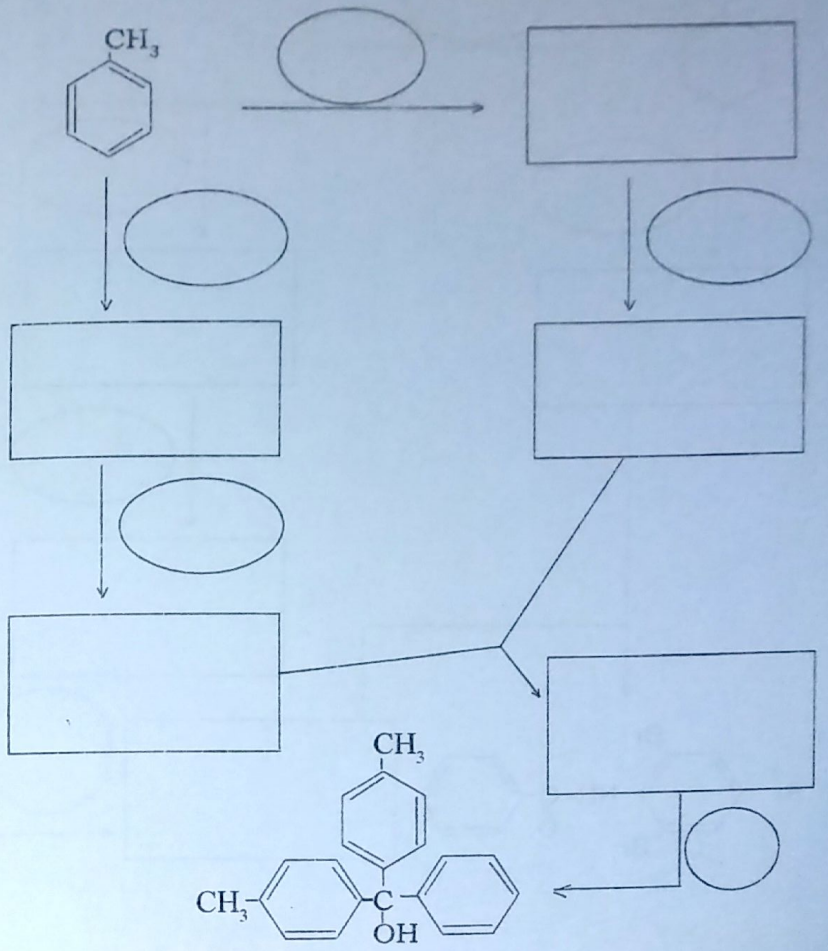
21. List of the reagent and solvent:
PCl_5, dil HCl, $LiAlH_4$, NH_3
water, dry ($C_2H_5OC_2H_5$)



22. List of the reagent and solvent:
PCl_5, $LiAlH_4$, NaOH, dil.HCl
C_2H_5OH, water, dry ($C_2H_5OC_2H_5$)



23. List of the reagent and solvent:
Mg, Zn, Pt, Fe, Hg
Br_2, PCl_5, $AlCl_3$
KCN, $K_2Cr_2O_7$, Conc. HNO_3, Conc. H_2SO_4, Conc.HCl
aq NaOH,
CH_3COCH_3, C_2H_5OH, water, dry ($C_2H_5OC_2H_5$)



24. List of the reagent and solvent:

Br_2, PCl_5, $AlCl_3$

$NaNO_2$, KCN, dil.HCl, aq NaOH, CuCN

C_2H_5OH, water, dry ($C_2H_5OC_2H_5$)